

TEXT OF FINAL REGULATIONS

Current wording is indicated by regular type.
Originally proposed deletions are indicated by ~~strikeout~~.
Originally proposed additions are indicated by underline.

TITLE 3. CALIFORNIA CODE OF REGULATIONS DIVISION 6. PESTICIDES AND PEST CONTROL OPERATIONS CHAPTER 1. PESTICIDE REGULATORY PROGRAM SUBCHAPTER 1. DEFINITION OF TERMS ARTICLE 1. DEFINITIONS FOR DIVISION 6

Amend section 6000 by adding, in alphabetical order, the following definitions:

6000. Definitions.

"Application block" means a field or portion of a field treated in a 24-hour period that typically is identified by visible indicators, maps, or other tangible means.

"Buffer zone" means an area that surrounds a pesticide application block in which certain activities are restricted for a specified period of time to protect human health and safety from existing or potential adverse effects associated with a pesticide application.

NOTE: Authority cited: Sections 11456, 11502, 12111, 12781, 12976, 12981, and 14005, Food and Agricultural Code.

Reference: Sections 11408, 11410, 11501, 11701, 11702(b), 11704, 11708(a), 12042(f), 12103, 12971, 12972, 12973, 12980, 12981, 13145, 13146, and 14006, Food and Agricultural Code.

CHAPTER 2. PESTICIDES SUBCHAPTER 4. RESTRICTED MATERIALS ARTICLE 4. USE REQUIREMENTS

Amend section 6450 to read:

6450. Chloropicrin and Methyl Bromide Field Fumigation.

(a) ~~Except as provided in (c), chloropicrin or methyl bromide, singly or in combination, for field fumigation of soil by injection, shall be applied at a minimum depth of six inches, unless otherwise specified by the registered label for the intended use and covered with a gas confining tarp of a thickness approved by the commissioner or director.~~

The provisions of this section and sections 6450.1, 6450.2, 6450.3, and 6784(b) pertain to field soil fumigation use requirements using methyl bromide, singly or in combination with

chloropicrin or any other pesticide or warning agent. For purposes of these sections, field soil fumigation does not apply to golf courses, tree holes, potting soil, raised-tarpaulin nursery fumigations of less than one acre, and greenhouses and other similar structures.

(a) Notwithstanding section 6428, the operator of the property to be treated shall submit a proposed worksite plan to the commissioner for evaluation at least 7 days prior to submitting a notice of intent. The proposed worksite plan shall include, but is not limited to, method of application to be used, acreage and identification of each application block to be treated, application rate to be used, description of the notification procedure to property operators pursuant to section 6450.1(b), description of any activities within the buffer zone(s) as specified in section 6450.2(e) and (f), and if applicable, description of the tarpaulin repair response plan, and tarpaulin removal. The commissioner shall retain the proposed worksite plan for one year after the expiration of the permit.

(b) The commissioner, pursuant to section 6432, shall evaluate local conditions and the proposed worksite plan.

(c) The commissioner shall include at least the following when conditioning a permit: the buffer zone requirements, work hour restrictions, notification requirements, any other restrictions to address local conditions, and if applicable, description of the tarpaulin repair response plan and tarpaulin removal. The commissioner shall complete the evaluation and complete conditioning the permit prior to the submission of the notice of intent.

(d) An application block shall not exceed 40 acres.

(e) Tarpaulins shall have a permeability factor between 5 and 8 milliliters methyl bromide per hour, per square meter, per 1,000 parts per million of methyl bromide under the tarpaulin at 30 degrees Celsius, and be approved by the Department. A list of approved tarpaulins is available from the Department.

~~(b)f) Gas confining t~~Tarpaulins shall be buried under at least four inches of firmly packed soil at the end of the rows along all edges. The tarpaulins shall remain in place for the time specified in section 6450.3, until at least 48 hours have elapsed since any chloropicrin or methyl bromide was applied. Unsealing of tarps shall be discontinued at any time if the presence of gas is readily evident.

~~(c) The commissioner or director may approve use of chloropicrin or methyl bromide singly or in combination without tarping when he determines that the use will not be hazardous to persons, wildlife or the environment.~~

~~(d) Equipment for application shall be operated in such a manner as to minimize drip when the application device is lifted from the soil.~~

(g) Fumigation equipment shall be operated to eliminate pesticide drip by clearing the fumigant from the injection device before it is lifted or removed from the soil.

NOTE: Authority cited: Sections 407 11456, 12976, 12981, 14005 and 14102, Food and Agricultural Code.

Reference: Sections 11501, 12981, 14006 and 14102, Food and Agricultural Code.

Adopt section 6450.1 to read:

6450.1. Methyl Bromide Field Fumigation Notification Requirements.

(a) Notification to the Commissioner.

(1) Notwithstanding section 6434, the operator of the property to be treated shall assure that the commissioner is notified (notice of intent) at least 48 hours prior to commencing fumigation. The notice of intent shall indicate the hour the fumigation is intended to commence and the information specified in section 6434(b).

(2) The fumigation shall not commence sooner than the intended starting time or later than 12 hours after the intended starting time specified on the notice of intent.

(3) If fumigation of an application block does not commence within the time specified in (a)(2), a new notice of intent must be submitted but no 48 hour waiting period is needed unless required by the commissioner.

(4) For multiple application blocks to be fumigated sequentially, the commissioner may allow one notice of intent that includes an application schedule for all the application blocks in lieu of a separate notice of intent for each application block to be fumigated. The schedule must specify the date and time each application block is intended to be fumigated.

(b) Notification to Property Operators.

(1) The operator of the property to be treated shall assure that operators of the following properties within 300 feet from the perimeter of the outer buffer zone receive notification that a permit to use methyl bromide near their property has been issued by the commissioner: properties that contain schools, residences, hospitals, convalescent homes, onsite employee housing, or other similar sites identified by the commissioner. Notification shall be in writing, or by other means approved by the commissioner. The operator of the property to be treated shall assure that notification is delivered at least seven (7) days prior to the submission of the notice of intent. The notification shall include the following information:

(A) the name of the chemical(s) to be applied;

(B) name, business address, and business telephone number of the operator of the property to be treated;

(C) name, business address, and business telephone number of the commissioner;

(D) the earliest and latest dates that the fumigation will start; and

(E) how to request subsequent notification of specific date and time of the fumigation.

(2) The operator of the property to be treated shall assure that specific notification of the date and time of the start of the fumigation and anticipated expiration of buffer zones is provided to those persons notified in (b)(1) who request specific fumigation information. This specific fumigation notification shall be provided at least 48 hours prior to starting the fumigation. If a request for specific notification is received after the submission of the notice of intent and before the fumigation begins, the specific fumigation notification shall be provided prior to starting the fumigation, but the 48-hour requirement shall not apply. If the fumigation of an application block does not commence within the time frame specified in (a)(2), then a new notification must be provided to those persons who requested the information, but the 48-hour requirement shall not apply unless required by the commissioner.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005 and 14102, Food and Agricultural Code.

Reference: Sections 11501, 12981, 14006 and 14102, Food and Agricultural Code.

Adopt section 6450.2 to read:

6450.2. Methyl Bromide Field Fumigation Buffer Zone Requirements.

(a) The commissioner shall approve buffer zone sizes and durations based upon local conditions.

(b) The operator of the property to be treated shall assure that all buffer zone distances are measured from the perimeter of the application block.

(c) The buffer zone restrictions shall begin at the start of fumigation. The buffer zone restrictions shall remain in effect for at least 36 hours after the completion of the injection to the application block.

(d) Two buffer zones, an inner and outer for each application block, shall be approved by the commissioner after the proposed worksite plan is submitted.

(e) Inner Buffer Zone Restrictions.

(1) The inner buffer zone shall be at least 50 feet and shall not extend into adjoining property except as provided in (3) below.

(2) The operator of the property to be treated shall assure that no persons are allowed within the inner buffer zone except to transit and perform fumigation handling activities.

(3) The inner buffer zone may extend into adjoining agricultural property if the adjoining property operator gives written permission and allows the operator of the property to be treated to post the inner buffer zone boundary on the adjoining property with signs. If such written permission is given, the operator of the property to be treated shall assure that:

(A) the inner buffer zone boundaries on the adjoining property are posted with signs while the buffer zone is in effect; and

(B) the signs are posted so that the wording is clearly visible, to persons with normal vision, from a distance of 25 feet and shall contain the following words: "METHYL BROMIDE INNER BUFFER ZONE" and "KEEP OUT" and "NO ENTRE"; and

(C) the signs are posted at intervals not exceeding 200 feet.

(f) Outer Buffer Zone Restrictions.

(1) The outer buffer zone shall be at least 60 feet.

(2) The operator of the property to be treated shall assure that no persons are allowed within the outer buffer zone except to transit, perform fumigation handling activities, and commissioner-approved activities as identified in the restricted materials permit conditions. In no instance shall persons be allowed within the outer buffer zone for more than 12 hours in a 24-hour period.

(3) The outer buffer zone may extend into other properties with permission from the operators of these other properties. In no instances shall the outer buffer zone contain occupied residences or occupied onsite employee housing while the outer buffer zone is in effect. The outer buffer zone shall not extend into properties that contain schools, convalescent homes, hospitals, or other similar sites identified by the commissioner.

(4) The outer buffer zone may extend across roads, highways, or similar means of travel or sites approved by the commissioner.

(g) The operator of the other properties specified in (e)(3) and (f)(3) above, shall notify the following persons that a buffer zone(s) has been established on the property: onsite employees, including those of a licensed pest control business or farm labor contractor. The notice to employees shall be given prior to the commencement of the employee's work activity.

Notification to farm labor contractor employees may be done by giving written notice to the farm labor contractor who shall then give the notice to the employee. Employee notification shall include information required in section 6450.1(b)(2).

(h) If the operator of the other property is required to notify his/her employees as specified in (g), then the operator of the property to be treated shall assure that specific notification of the date and time of the start of the fumigation and anticipated expiration of buffer zones is provided to the other property operator. This specific fumigation notification shall be provided to the other property operator at least 48 hours prior to starting the fumigation. If the fumigation of an application block does not commence within the time frame specified in (a)(2), then a new notification must be provided to the other property operator specified in (e)(3) and (f)(3), but the 48-hour requirement shall not apply unless required by the commissioner.

(i) When a school property is within 300 feet of the perimeter of the outer buffer zone, the injection shall be completed 36 hours prior to the start of a school session. School session shall be those times when students are attending scheduled classes.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005 and 14102, Food and Agricultural Code.

Reference: Sections 11501, 12981, 14006 and 14102, Food and Agricultural Code.

Adopt section 6450.3 to read:

6450.3. Methyl Bromide Field Fumigation Methods.

(a) The fumigation shall be made only in accordance with the following restrictions, except for experimental research purposes pursuant to a valid research authorization issued according to section 6260.

(1) Nontarpaulin/Shallow/Bed

(A) Application rate shall not exceed 200 pounds of methyl bromide per acre.

(B) The application tractor shall be equipped with an air fan dilution system.

(C) Rearward-curved (swept-back) chisels shall be used with:

1. closing shoes and bed-shaper, or closing shoes and compaction roller; and

2. chisel injection points positioned beneath and behind the closing shoes.

(D) Injection depth shall be between 10 and 15 inches. The injection depth to preformed beds must not be below the bed furrow.

(E) Injection spacing shall be 40 inches or less.

(F) The soil shall not be disturbed for at least 3 days (72 hours) following completion of injection to the application block.

(G) The application block restricted entry interval shall be 3 days.

(2) Nontarpaulin/Deep/Broadcast

(A) Application rate shall not exceed 400 pounds of methyl bromide per acre.

(B) Forward-curved chisel shall be used with:

1. An application tractor equipped with an air fan dilution system and the injection depth shall be at least 20 inches; or

2. Closing shoes and compaction roller and the injection depth shall be at least 24 inches.

(C) Injection spacing shall be 68 inches or less.

(D) The soil shall not be disturbed for at least 4 days (96 hours) following completion of injection to the application block.

(E) The application block restricted entry interval shall be 4 days.

(3) Tarpaulin/Shallow/Broadcast

(A) Application rate shall not exceed 400 pounds of methyl bromide per acre.

(B) Application shall be made using either:

1. An application tractor equipped with an air fan dilution system, and with a plow consisting of horizontal v-shaped blades mounted by a vertical arm to the tool bar. The fumigant shall be injected laterally beneath the soil surface; or

2. Rearward-curved (swept-back) chisels, closing shoes, and compaction roller shall be used.

(C) Injection depth shall be between 10 and 15 inches.

(D) Injection spacing shall be 12 inches or less.

(E) The tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor.

(F) The tarpaulin shall not be cut until a minimum of 5 days (120 hours) following completion of injection to the application block. The tarpaulin shall be cut pursuant to section 6784(b)(5).

(G) Tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed.

(H) The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 6 days.

(4) Tarpaulin/Shallow/Bed

(A) Application rate shall not exceed 250 pounds of methyl bromide per acre.

(B) Rearward-curved (swept-back) chisels shall be used with either:

1. Closing shoes and compaction roller. The closing shoes shall cover the chisel marks with soil just ahead of the compaction roller, and the tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor; or

2. Bed shaper. The chisels shall be placed with the injection point under the bed shaper, and the tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor; or

3. Combination bed former and bed shaper. The chisels shall be placed between the bed former and the bed shaper. The tractor with the tarpaulin-laying equipment shall immediately follow the application tractor.

(C) Injection depth shall be between 6 and 15 inches. The injection depth to preformed beds must not be below the bed furrow.

(D) Injection spacing shall be 12 inches or less.

(E) The tarpaulin shall not be cut until at least 5 days (120 hours) following completion of injection to the application block.

(F) If tarpaulins are removed before planting, tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed. The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 6 days.

(G) If tarpaulins are not to be removed before planting, the application block restricted entry interval shall either:

1. consist of the 5-day period described in subsection (E) plus an additional 48 hours after holes have been cut for planting, or
2. be at least 14 days. If this option is chosen, the methyl bromide air concentration underneath the tarpaulin must test less than 5 parts per million before planting begins.

(5) Tarpaulin/Deep/Broadcast

(A) Application rate shall not exceed 400 pounds of methyl bromide per acre.

(B) Forward-curved chisels shall be used with either:

1. An air fan dilution system on the application tractor; or
2. Closing shoes and compaction roller.

(C) Injection depth shall be at least 20 inches.

(D) Injection spacing shall be 66 inches or less.

(E) The tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor.

(F) The tarpaulin shall not be cut until at least 5 days (120 hours) following completion of injection to the application block. The tarpaulin shall be cut pursuant to section 6784(b)(5).

(G) Tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed.

(H) The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 6 days.

(6) Drip System – Hot Gas

A hot gas application through a subsurface drip irrigation system to tarpaulin-covered beds may be used if all of the following criteria are met:

(A) Application rate shall not exceed 225 pounds of methyl bromide per acre.

(B) The fumigant shall be injected beneath the soil surface at a minimum depth of one inch.

(C) The portion of the drip system used in the fumigation shall be physically disconnected from the main water supply during the fumigation to prevent possible contamination of the water supply.

(D) All fittings and emitters underneath the tarpaulin shall be buried in the soil to a minimum depth of 1 inch.

(E) Prior to the start of the fumigation, all drip tubing shall be checked for blockage, and the irrigation system connections and fittings checked for blockage and leaks using pressurized air and/or water. The end of each drip tubing shall be placed under the tarpaulin prior to introduction of fumigant.

(F) The tarpaulin shall be placed and inspected for tears, holes, or improperly secured edges prior to fumigating. Repairs and adjustments shall be made before the fumigation begins.

(G) Prior to the start of the fumigation, all fittings above ground and outside of the tarpaulin shall be pressure tested with compressed air, water, or nitrogen gas to a maximum pressure of 50 pounds per square inch. A soap solution shall be used to check the fittings for leaks if using air or nitrogen. All apparent leaks shall be eliminated prior to the fumigation. All drip tubing with emitters connected to the distribution manifold not covered by the tarpaulin shall be sealed to prevent fumigant loss through the emitters.

(H) Prior to introducing the fumigant, the drip system shall be purged of water by means of pressurized gas such as CO₂ or nitrogen.

(I) The drip system shall be purged prior to disconnecting any line containing the fumigant.

(J) After purging, drip tubing shall be pinched off and then disconnected from the distribution manifold. All disconnected tubing leading into the treated field shall be secured to prevent gas from escaping.

(K) All fittings used for connecting or disconnecting the heat exchanger to the irrigation system manifold shall be of a positive shut-off design.

(L) All persons shall wear the eye protection specified on the label when working with a manifold system or tubing containing the fumigant under pressure.

(M) The entire fumigation system (heater, valves, and manifold) shall be purged of the fumigant at the end of each day's fumigation.

(N) The tarpaulin shall not be cut until at least 5 days (120 hours) following completion of injection to the application block.

(O) If tarpaulins are removed before planting, tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed. The application block restricted entry interval shall end at completion of tarpaulin removal and shall be at least 6 days.

(P) If tarpaulins are not to be removed before planting, the application block restricted entry interval shall either:

1. consist of the 5-day period described in subsection (N) plus an additional 48 hours after holes have been cut for planting, or

2. be at least 14 days. If this option is chosen, the methyl bromide air concentration underneath the tarpaulin must test less than 5 parts per million before planting begins.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005 and 14102, Food and Agricultural Code.

Reference: Sections 11501, 12981, 14006 and 14102, Food and Agricultural Code.

CHAPTER 3. PEST CONTROL OPERATIONS
SUBCHAPTER 3. PESTICIDE WORKER SAFETY
ARTICLE 4. FUMIGATION

Amend section 6784 to read:

6784. Field Fumigation.

~~(a) Whenever methyl bromide or chloropicrin is used for field fumigation, at least two trained employees shall be present during introduction of the fumigant and removal of tarps, if used.~~

~~(b)~~ Signs shall be posted in accordance with ~~S~~section 6776~~(e)~~(f) and shall remain in place until aeration is complete.

(b) The provisions of this subsection pertain to field soil fumigations using methyl bromide, singly or in combination with chloropicrin or any other pesticide or warning agent, applied pursuant to the fumigation methods described in section 6450.3.

(1) For purposes of this subsection, fumigation handling activities includes an employee involved in assisting with covering the tarpaulin at the end of the rows (shoveling); observing the overall operation, checking tarpaulin placement, changing cylinders (copiloting); operating application equipment (driving); and tarpaulin cutting and removal.

(2) Employer Recordkeeping. The employer shall maintain records for all employees involved in application, tarpaulin cutting, tarpaulin repair, and tarpaulin removal activities. The records shall identify the person, work activity(ies), date(s), duration of handling, the U.S. Environmental Protection Agency Registration Number, and the brand name of the methyl bromide product handled. The employer shall maintain these use records at a central location for two years and the records shall be made available to the commissioner upon request.

(3) Employee Protection Requirements for Fumigation Handlers.

(A) Employees involved primarily in shoveling shall work only at the ends of the application rows.

~~(a)~~(B) Whenever methyl bromide, singly or in combination with chloropicrin or any other pesticide or warning agent, is used for field soil fumigation, at least two trained employees shall be present during introduction of the fumigant and removal of tarpaulins, if used.

(4) Limited Work Hours.

(A) Multiple Task Employees. An employee may work in more than one work task and/or application method in a 24-hour period as long as the employee's total work hours do not exceed the lowest total hours specified in the chart below for any one work task or application method performed.

(B) Fumigation Handling Activities. No employee may work in fumigation handling activities more than the hours specified in the chart below, in a 24-hour period, during the injection period and during the restricted entry interval.

<u>Fumigation Method/Activities</u>	<u>Maximum Application Rate</u>	<u>Maximum Work Hours in a 24-Hour Period</u>
<u>Nontarpaulin/Shallow/Bed Application Equipment Driving</u>	<u>200 lbs.</u>	<u>4*</u>
<u>Nontarpaulin/Deep/Broadcast Application Equipment Driving</u>	<u>400 lbs.</u>	<u>4*</u>
<u>Tarpaulin/Shallow/Broadcast Application Equipment Driving</u> <u>Shoveling, Copiloting</u> <u>Tarpaulin Cutting</u> <u>Tarpaulin Removal</u>	<u>400 lbs.</u>	<u>4*</u> <u>3*</u> <u>4</u> <u>7</u>
<u>Tarpaulin/Shallow/Bed Application Equipment Driving</u> <u>Shoveling, Copiloting</u> <u>Tarpaulin Cutting</u> <u>Tarpaulin Removal</u>	<u>250 lbs.</u>	<u>4*</u> <u>4*</u> <u>4</u> <u>7</u>
<u>Tarpaulin/Deep/Broadcast Application Equipment Driving</u> <u>Shoveling, Copiloting</u> <u>Tarpaulin Cutting</u> <u>Tarpaulin Removal</u>	<u>400 lbs.</u>	<u>4*</u> <u>3*</u> <u>4</u> <u>7</u>
<u>Drip System – Hot Gas Applicators</u> <u>Tarpaulin Cutting</u> <u>Tarpaulin Removal</u>	<u>225 lbs.</u>	<u>2*</u> <u>4</u> <u>7</u>

*If the actual methyl bromide application rate is less than the maximum application rate shown in the chart above for the particular fumigation method used, the maximum work hours may be increased in accordance with the following formula:

$$\left(\frac{\text{maximum application rate for method}}{\text{actual application rate}} \right) \times \begin{matrix} \text{maximum} \\ \text{work hours in a} \\ \text{24-hour period} \end{matrix} = \begin{matrix} \text{revised maximum} \\ \text{work hours in a} \\ \text{24-hour period} \end{matrix}$$

(5) Tarpaulin Cutting and Removal Procedures

(A) Tarpaulin cutting and tarpaulin removal shall be discontinued if the presence of gas is readily evident (onset of eye irritation or odor).

(B) Tarpaulins used for broadcast fumigations shall be cut using only mechanical methods (all-terrain vehicle or a tractor with a cutting wheel). Each tarpaulin panel used for broadcast fumigations shall be cut lengthwise.

(6) Tarpaulin Repair.

(A) The operator of the property shall assure that a "tarpaulin repair response plan" is provided to the commissioner. The tarpaulin repair response plan shall identify the responsibilities of the licensed pest control business and/or the permittee with regard to tarpaulin damage detection and repair activities. At a minimum, the tarpaulin repair response plan shall indicate the parties responsible for the repair and incorporate the applicable elements listed in (B) below.

(B) The "tarpaulin repair response plan" approved by the commissioner in the worksite plan must state with specificity the situations when tarpaulin repair must be conducted. The situations should be based on, but not limited to, hazard to the public, residents or workers; proximity to occupied structures, size of the damaged area(s); timing of damage; feasibility of repair; and environmental factors such as wind speed and direction.

(C) The ambient air in the areas of the tarpaulin to be repaired must be tested for methyl bromide concentration by a certified applicator of the licensed pest control business that made the application, or by a certified applicator employee of the permittee, or certified applicator permittee, using a testing device as specified by the labeling. The certified applicator must wear respiratory protective equipment when conducting these tests.

(D) All repair work areas must test less than 5 parts per million methyl bromide before any employee without respiratory protection shall be allowed to enter and conduct tarpaulin repair. Such employee is limited to one (1) work hour in a 24-hour period.

NOTE: Authority cited: Sections 407 11456 and 12981, Food and Agricultural Code.
Reference: Section 12981, Food and Agricultural Code.